

Remarks

The present Amendment is submitted in response to the non-final Office Action mailed from the Patent Office on June 9, 2009.

The non-final office Action rejects claims 1, 3-9, 11 and 14-16 under 35 USC §112, second paragraph, as indefinite. Claims 1, 3-5, 7-9, 11, 14 and 15 are rejected under 35 USC §103(a) as unpatentable over Stirn and Ousbäck in view of Koehler. Claim 6 is rejected under 35 USC §103(a) as unpatentable over Stirn, Ousbäck and Koehler further in view of US Patent No. 4,095,654 to Ross (Ross). Claim 16 is rejected under 35 USC §103(a) as unpatentable over Stirn, Ousbäck and Koehler in view of US Patent No. 4,828,046 to Pyatov (Pyatov).

Rejections under 35 USC § 112

The Examiner rejects claims 1, 3-9, 11 and 14-16 under 35 USC 112, second paragraph, asserting that *an angle between the longitudinal axis of the guide cylinder and a rotation axis of the drive unit is adjustable by means of the cranked section*, is unclear.

In response, applicants have amended independent claim 1 as shown above. As amended, independent claim 1 is believed to clearly define that the angle between a longitudinal axis (25) of the guide cylinder (17) and a rotation axis (21) of the drive unit (11) is dependent upon an angular offset between the first and second longitudinal sections of the cranked rod, and the cranked section (26), and that said angle is not literally adjustable.

Consequently, independent claim 1, and claims 3-9, 11 and 14-16 that depend from claim 1, are believed to comply fully with the requirements of the second paragraph of section 112, and applicants respectfully request withdrawal of the rejections thereunder.

35 USC §103(a)

In the rejection of claims 1, 3-5, 7-9, 11, 14 and 15 over Stirn and Ousbäck in view of Koehler, the Examiner asserts that Stirn discloses an impact mechanism including cam mechanism (523, 533) driven by drive unit (511, 514) and including a piston (520) and a striker (569) movable inside a separate guide cylinder (530), wherein the piston (520) is connected to the drive unit (511, 514) by a drive element (rod 531).

The Examiner asserts that Stirn's drive element (rod 531) is not a cranked rod with a cranked section, as claimed, but that Ousbäck discloses a piston (11) connected to a drive unit (6) by a cranked rod (9) with a cranked section (10) in order to change the length of the striker (page 1, lines 8-12), and that it would have been obvious to modify Stirn's drive unit (511, 514) with Ousbäck's cranked rod (9) with a cranked section (10).

The Examiner then further asserts that Stirn fails to disclose a Scotch Yoke slider crank provided to transmit a force between its cam mechanism (523, 533) and rod (531), but that Koehler does (Scotch Yoke slider crank (196)), and that the skilled artisan would have found it obvious to modify the Stirn/Ousbäck

modification with the Koehler Scotch Yoke slider crank (196) to reduce overall length and weight, to reduce the number of components and to reduce cost.

Applicants respectfully disagree Ousbäck's crank web 9 and connecting rod or link 10 are equivalent to applicant's claimed cranked rod comprising a cranked section (26), which embody drive element (18), or that it would have been obvious to modify Stirm with Ousback and realize the invention as claimed.

As is known, in order to arrive at a claimed invention by modifying the references cited art must itself contain a suggestion for such a modification. This principle has been consistently upheld by the U.S. Court of Customs and Patent Appeals which, for example, in the case In re Randol and Redford, 165 USPQ 586 (CCPA) that

Prior patents are references only for what they clearly disclose or suggest; it is not a proper use of a patent as a reference to modify its structure to one which prior art references do not suggest.

Neither reference discloses any hint or suggestion for their combination, nor can it be considered as obvious to combine the references in view of the law and facts. As stated, for example in ATD Corp. v Lydale, Inc., 48 USPQ 2d 1321, 1329 (Fed. Cir. 1999):

"Determination of obviousness can not be based on the hindsight combination of components selectively culled from the prior art to feed the parameters of the patented invention. There must be a teaching or suggestion within the prior art within general knowledge of a person of ordinary skill in the field of the invention, to look to particular sources of the information, to select particular elements, and to combine them in the way they were combined by the inventor".

Additionally, because applicants' impact mechanism (12), piston (15) and striker (16) is arranged to cooperate with the drive element 18 embodied as cranked rod with cranked section (26), displaying a stiff connection between both ends of the rod, Ousback's mechanism could not operate therewith.

Applicants further disagree that Ousback shows that an angle between a longitudinal axis of the drive element 10 and a rotation axis of drive unit 6 is adjustable by adjusting position of ring 8 (page 2, lines 19-31), as claimed. Changing position of ring 8 changes stroke size, but not the rotation axis of drive unit 6 with respect to drive element 10. That is, the axis of rotation is not changed dependent upon the dimension of the drive element, i.e., cranked rod with cranked section (26), as claimed.

Moreover, in view of the instant amendment to independent claim 1, modifying Stirm with Ousbäck's crank web (9) and connecting rod 10 would still not realize a piston connected to a drive unit by a drive element embodied as a cranked rod comprising a cranked section and a first longitudinal segment on a first side of the cranked section (26) and a second longitudinal element on a second side of the cranked section (26), as claimed.

Applicants further disagree that it would have been obvious to modify Stirm as modified by Ousback with Koehler's Scotch Yoke slider mechanism. Stirm cannot be modified to incorporate a Scotch Yoke slider crank such as disclosed by Koehler in order to transmit a force between its cam mechanism

(523, 533) and rod (531), as is should be clear by a review of Stirm's Fig. 6 and accompanying text.

For at least these reasons, claim 1 as amended and claims 3-5, 7- 9, 11, 14 and 15 are therefore patentable under 35 USC §103(a) over Stirm and Ousback in view of Koehler, and applicant respectfully request withdrawal of the rejection thereunder.

In response to the rejection under section 103(a) of claim 6 over Stirm, Ousback and Koehler, further in view of Ross, applicants respectfully assert that Ross suffers the same shortcomings of Stirm, Ousbäck and Koehler, as stated above in response to the rejection of independent claim 1.

That is, Ross, like Stirm and Ousback combined with Koehler, fails to disclose, teach or suggest a piston connected to the drive unit by a drive element embodied as a cranked rod comprising a cranked section and a first longitudinal segment on a first side of the cranked section and a second longitudinal element on a second side of the cranked section; wherein a Scotch Yoke slider crank is provided to transmit the force between the cam and the drive element; and wherein an angle between a longitudinal axis of the guide cylinder and a rotation axis of the drive unit is dependent upon an angular offset between the first and second longitudinal sections of the cranked rod, and the cranked section.

Applicants, therefore, respectfully request the withdrawal of the rejection of claim 6 under section 103(a) by the Stirm/Ousback/Koehler combination further in view of Ross.

In response to the rejection under section 103(a) of claim 16 over Stirm, Ousback and Koehler, further in view of Pyatov, applicants respectfully assert that Pyatov suffers the same shortcomings of Stirm, Ousbäck and Koehler, as stated above in response to the rejection of independent claim 1.

That is, Pyatov, like Stirm and Ousback combined with Koehler, fails to disclose, teach or suggest a piston connected to the drive unit by a drive element embodied as a cranked rod comprising a cranked section and a first longitudinal segment on a first side of the cranked section and a second longitudinal element on a second side of the cranked section; wherein a Scotch Yoke slider crank is provided to transmit the force between the cam and the drive element; and wherein an angle between a longitudinal axis of the guide cylinder and a rotation axis of the drive unit is dependent upon an angular offset between the first and second longitudinal sections of the cranked rod, and the cranked section.

Applicants, therefore, respectfully request the withdrawal of the rejection of claim 16 under section 103(a) by the Stirm/Ousback/Koehler combination further in view of Pyatov.

Accordingly, the application as amended, including pending claims 1, 3-9, 11 and 14-16, is believed to be in condition for allowance. Action to this end is courteously solicited. However, should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application in condition for allowance.

Respectfully submitted,

A handwritten signature in black ink, consisting of a stylized 'M' followed by a long horizontal stroke.

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